

**REMARKS**

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-17 are now present in the application. Claims 1, 5, 9 and 15 are independent. Reconsideration of this application is respectfully requested.

**Drawings**

Applicant thanks the Examiner for accepting the formal drawings of the instant application.

**Claim Rejections Under 35 U.S.C. § 103**

Claims 1-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee, U.S. Patent No. 6,104,016, in view of Melink, U.S. Patent No. 6,170,480. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Independent claim 1 recites a combination of elements including "the controller outputting a driving signal in response to the amount of the fumes and/or moisture exceeding a first predetermined reference value, the controller stopping outputting the driving signal in response to the amount of the fumes and/or moisture equal to or lower than a second predetermined reference value, the first predetermined reference value being higher than the second predetermined reference value".

Independent claims 5 and 9 recite a combination of steps including “driving a blower fan when an amount of the detected fumes and/or moisture... is higher than a first predetermined reference value; and stopping the blower fan when the amount of the detected fumes and/or moisture... is equal to or lower than a second predetermined reference value, the first predetermined reference value being higher than the second predetermined reference value”.

Independent claim 15 recites a combination of elements including “the blower fan inhaling the air when the amount of the fumes and/or moisture is higher than a first predetermined reference value, the blower fan stopping inhaling the air when the amount of the fumes and/or moisture is equal to or lower than a second predetermined reference value, the first predetermined reference value being higher than the second predetermined reference value”.

Applicant respectfully submits that the combinations of elements and steps as set forth in independent claims 1, 5, 9 and 15 are not disclosed or suggested by references relied on by the Examiner.

The Examiner has indicated that Lee fails to disclose the controller determining the amount of fumes/moisture and comparing the amount with predetermined reference values to control the on-off state of the fan. As presented in the last Reply filed January 18, 2005, Lee only teaches that if the hood sensor 7 detects heat or fumes, the hood motor 30 is driven (see col. 5, lines 43-46). Accordingly Lee fails to teach “a first predetermined reference value”, “a second predetermined reference value” and “the first predetermined reference value being higher than the second predetermined reference value” recited in independent claims 1, 5, 9, and 15.

The Examiner relied on Melink and asserted that it would have been obvious to modify Lee in view of Melink’s teaching of using two predetermined volume rates according to the

sensed level to control the on-off of the exhaust system and that the combination of Lee and Melink teaches independent claims 1, 5, 9 and 15. Applicant respectfully disagrees.

Melink teaches that the exhaust system 32 will change the exhaust volume rate of air from a first volume rate toward a second volume rate in response to a sensed level in the ambient air environment 28 so as to increase air drawn out from the exhaust air environment (see FIG. 3; col. 11, lines 1-7). Melink's exhaust system 32 starts with a first volume rate to exhaust the air regardless of the sensed level of the cooking by-product (see FIG. 3, step 152; col. 11, lines 7-11). After starting exhaustion, if the sensed level exceeds the desired comfort threshold, the exhaust system 32 will increase the volume rate toward to the second volume rate (see FIG. 3, steps 154, 156 and 158; col. 11, lines 19-24). Thereafter, if the sensed level no longer exceeds the same desired comfort threshold, the exhaust system 32 will decrease the volume rate toward to the first volume rate (see FIG. 3, steps 162 and 164; col. 11, lines 40-44). In other words, Melink at best teaches using one threshold of the cooking by-product level to control the exhaust volume rates. Melink fails to teach "a first predetermined reference value" of the amount of the fumes and/or moisture, "a second predetermined reference value" of the amount of the fumes and/or moisture, and "the first predetermined reference value being higher than the second predetermined reference value" recited in independent claims 1, 5, 9, and 15.

Although Melink teaches two exhaust volume rates, those two exhaust volume rates merely stand for the speed of the fan. The fan works at either one of those two volume rates based on whether the sensed level of the cooking by-product is higher or lower than a desired comfort threshold. However, those two volume rates themselves are not two thresholds of the cooking by-product level to control the on-off state of the fan.

In addition, as shown in FIG. 3 of Melink, the exhaust system 32 always exhausts air, either at the first or second volume rate, even when the sensed level is below the desired comfort threshold (in this case, the exhaust system 32 will work at the first volume rate). Unlike Melink, the fan of the claimed invention will stop inhaling the air when the amount of the fumes and/or moisture is equal to or lower than a second predetermined reference value. Accordingly, Melink also fails to teach “the controller stopping outputting the driving signal in response to the amount of the fumes and/or moisture equal to or lower than a second predetermined reference value” as recited in claim 1, “stopping the blower fan when the amount of the detected fumes and/or moisture... is equal to or lower than a second predetermined reference value” as recited in claims 5 and 9, and “the blower fan stopping inhaling the air when the amount of the fumes and/or moisture is equal to or lower than a second predetermined reference value” as recited in claim 15.

Accordingly, neither of these references individually or in combination teaches or suggests the limitations of independent claims 1, 5, 9 and 15. Therefore, Applicant respectfully submits that independent claims 1, 5, 9 and 15 clearly define over the teachings of these references.

In addition, claims 2-4, 6-8, 10-14 and 16-17 depend, either directly or indirectly, from independent claims 1, 5, 9 and 15, and are therefore allowable based on their respective dependence from independent claims 1, 5, 9 and 15, which are believed to be allowable.

In view of the above remarks, Applicant respectfully submits that claims 1-17 clearly define the present invention over the references relied on by the Examiner. Accordingly,

reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

**CONCLUSION**

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

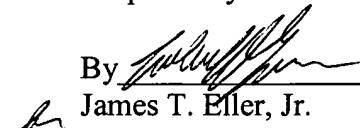
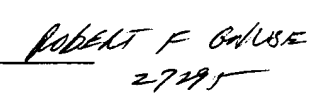
It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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